

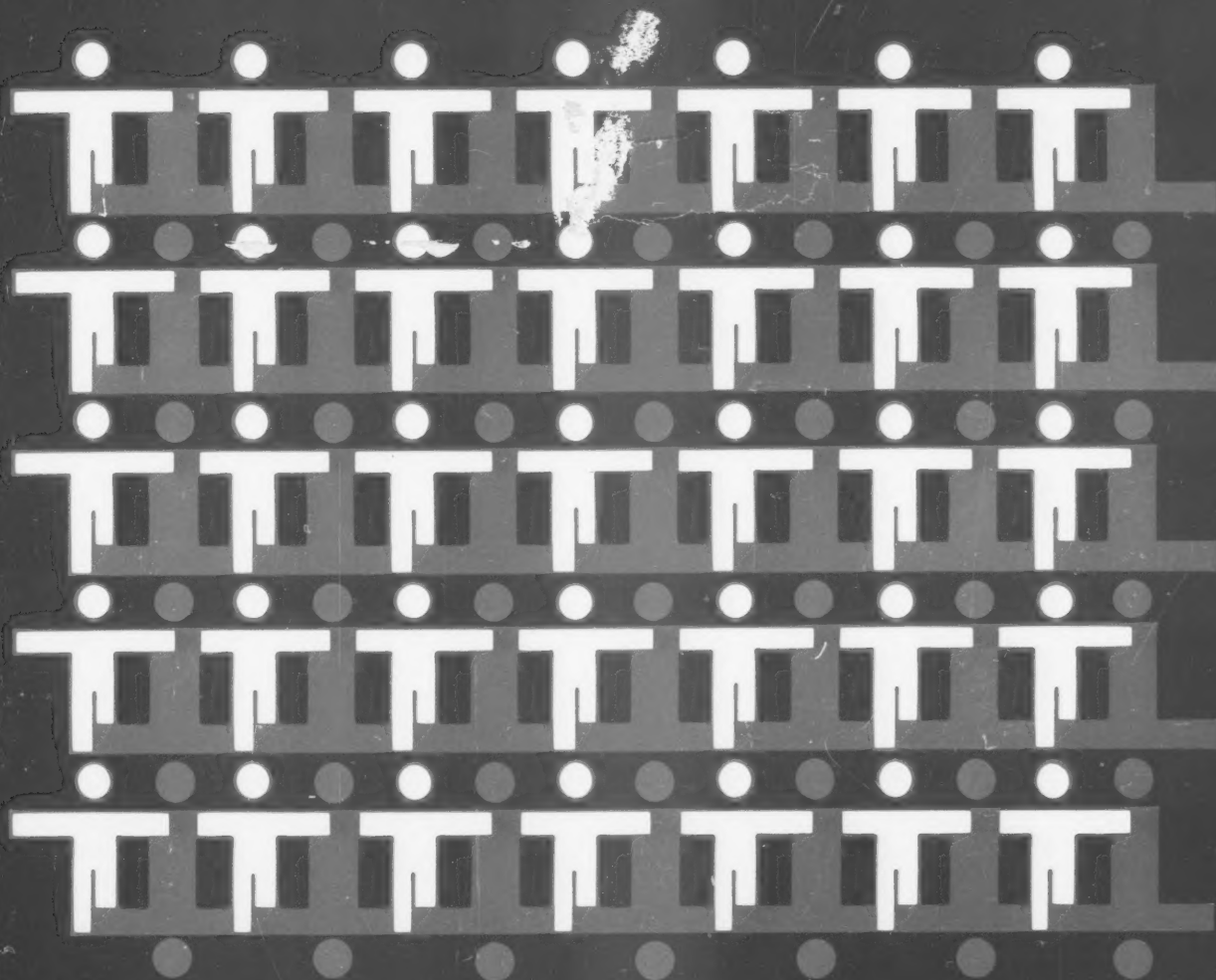


U.S. Department of Housing and Urban Development
Washington, D.C. 20410

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Challenge!

"...Social fabric is more important"



International Affairs



About the Canadian Division of Building Research

"The technology applied to building involves almost every facet of pure and applied science. For successful application, it must be understood by all whose work touches on building: owners, architects, engineers, contractors, material suppliers and operators. Most cannot be expected to have either depth or breadth in the knowledge available. It is clear, therefore, that participants in the building industry require assistance in matching available technology with the specific problems encountered in their day to day activities."

This need for assistance as quoted by C.B. Crawford of Canada's Division of Building Research (DBR) is addressed in Canada through the Division of Building Research of the National Research Council. Below is a brief description of the scope of activities of the Division of Building Research and the mechanisms being used to make the vast store of technical knowledge more easily available to the construction industry.

The DBR was established in 1947 to facilitate the transfer of technical information to the Canadian construction industry. All Sections of the DBR are involved with technology transfer with some having a special mandate in this endeavor.

Design and Use Section: primarily concerned with the development and promotion of information to aid the designer, builder and user.

The Information Services Group: made up of the Building Research Library, the Publications Section, and a Technical Information Unit.

Laboratory Sections:

- Building Materials Section – concerned with technology of building materials in use
- Building Structures Section – deals with structural safety and causes of structural failure
- Energy and Services Section – devoted primarily to problems of energy conservation
- Fire Research Section – concerned with the National Building Code as it relates to all aspects of fire
- Geotechnical Section – studies construction problems associated with soils, rock, peat, snow, ice and permafrost
- Noise and Vibration Section – evaluates and tests sound transmission and absorption characteristics of building elements and systems.

In addition to the above areas of work, there is a Codes and Standards Group which coordinates the support given by research staff to the National Building Code and the National Fire Code. Also the National Research Council formed the

Canadian Committee on Building Research to help stimulate and apply building science and technology in Canada with particular reference to the design, performance, and use of buildings. The membership comes from industry, universities, and government. The Committee has established several task forces to deal with specific building problems and has recommended that technology transfer be given top priority by DBR including the identification of a number of problem areas where technology transfer could be more effective.

Further details on this Canadian research entity can be obtained by writing the Division of Building Research, National Research Council of Canada, Ottawa K1A 0R6, Canada. The November 1978 issue of the Canadian Building Digest is devoted to a detailed description of the Division prepared by C.B. Crawford. The above article attempts to highlight and summarize Mr. Crawford's article.

New Initiatives Under the U.S. - Canada Bilateral Agreement

The exchange with our neighbors to the north continues to be one of the more productive of our international programs. Recent areas of exchange include the following:

Management of troubled multifamily housing projects –

Because the Canadian mortgage guarantee process is so similar to ours, and because they experience some of the same kinds of problems leading to government involvement in defaulted or otherwise troubled projects, an exchange was begun to see what each side might learn from the other, to improve government response.

Urban infill opportunities – The Canadians have created a process of estimating the costs of developing vacant urban lands versus suburban properties, which is very similar to one that HUD was attempting to initiate. The Canadians also have developed a means of identifying and mapping sites suitable for urban development that could have application in U.S. cities. The Canadian experience can have direct applicability and cost savings for HUD efforts.

Mobile home design – A working group has just begun to exchange information in detail on the design of mobile homes, specifically in the revision of standards for heating efficiency, insulation, safety and use of toxic materials in construction. Canadian technology promises to be very helpful to the industry in the U.S.

For more information on each of these exchanges, contact David Kunhardt in the HUD Office of International Affairs (755-7212).

U.S. Department of Housing and Urban Development
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Cover designed by Sara Tweedie

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"Buildings Are Not That Important... Social Fabric Is More Important"

An Interview with I.M. Pei

conducted by Thomas Glynn



*Bedford Stuyvesant Superblock,
Brooklyn, N.Y.*

Typical Brooklyn Street



*Photos on pages 2 thru 5 by I.M. Pei
and Associates*



The following interview is reprinted by permission of The Neighborhood: The Journal for City Preservation.

Long considered one of the most important figures in modern architecture, Ieoh Ming Pei began his professional urban work with William Zeckendorf in 1948. It was there that he learned about the flow of economic, political, and civic decisions that served him so well later on. Pei was recently selected by the American Institute of Architects' board of directors to receive the Institute's highest honor – the gold medal. Institute director Anna M. Halpin said about Pei's experiences with

housing projects, that they are "exciting urban space – instantly the gathering spots in those communities and places for people to celebrate life." And architectural critic Wolf Von Eckhardt said that Pei's plans "for the Government Center in Boston, or La Defense, a mile or so beyond the Arc de Triomphe in Paris, or the completed Place Ville Marie in Montreal and the Mile High Center in Denver changed the face of an entire city."

Glynn: What is the difference between urban design and architecture?

Pei: Architecture, in the narrow sense, is simply the design of a building for whatever function it is supposed to

perform. Urban design takes into consideration a much larger context. It's not the individual building anymore, it's the street, an area of a city, in fact, it takes into consideration the whole city itself.

Glynn: Would you comment on the statement, "Architects influence public behavior more than politicians."

Pei: I wish that were true. Unfortunately, it is not true. Part of it is that architects are not that concerned about social or political problems; so therefore, it is their fault and not the fault of society. But, there are

Government Center, Boston, Mass.

*U.S. National Bank, Mile High Center,
Denver, Colo.*



many architects who are concerned, and in their case, I think they could have a great deal of influence in society. In fact, in the public realm, I think we could have a great deal of influence. . . we should have a great deal of influence.

Glynn: How do you think that should or could be brought about?

Pei: Well to begin with, I think, first, the public has to be aware of the importance of the physical environment. If they are only interested in making a living, let's say, the physical environment is less important. But, I think our society today has reached a point where we consider ourselves a

developed country. We're no longer developing, we are developed. We're affluent. The best way to manifest that condition is that we should have time to be concerned about our physical environment. But, we are not concerned enough. However, we are starting. That's why environmentalists today are beginning to say things now about the environment and we listen to them. But five years ago, ten years ago, they weren't. So, I think we are beginning to assert ourselves about the larger problems of society; not just the economics of living, but rather the environment in which we live.

Glynn: I read somewhere that you'd said you learned a lot about the flow of



economic, political, and civic decisions that impinge upon architecture. Could you describe some of those?

Pei: I was fortunate enough to be here in New York working for a man like William Zeckendorf at a time when the Urban Redevelopment Program was in being. I think that was Title I of the Housing Act. That was a time when communities, particularly old communities all over the United States, were concerned about how they could best renew themselves. And the Federal Government encouraged that renewal through subsidies. So, they gave us an opportunity to look into the problem

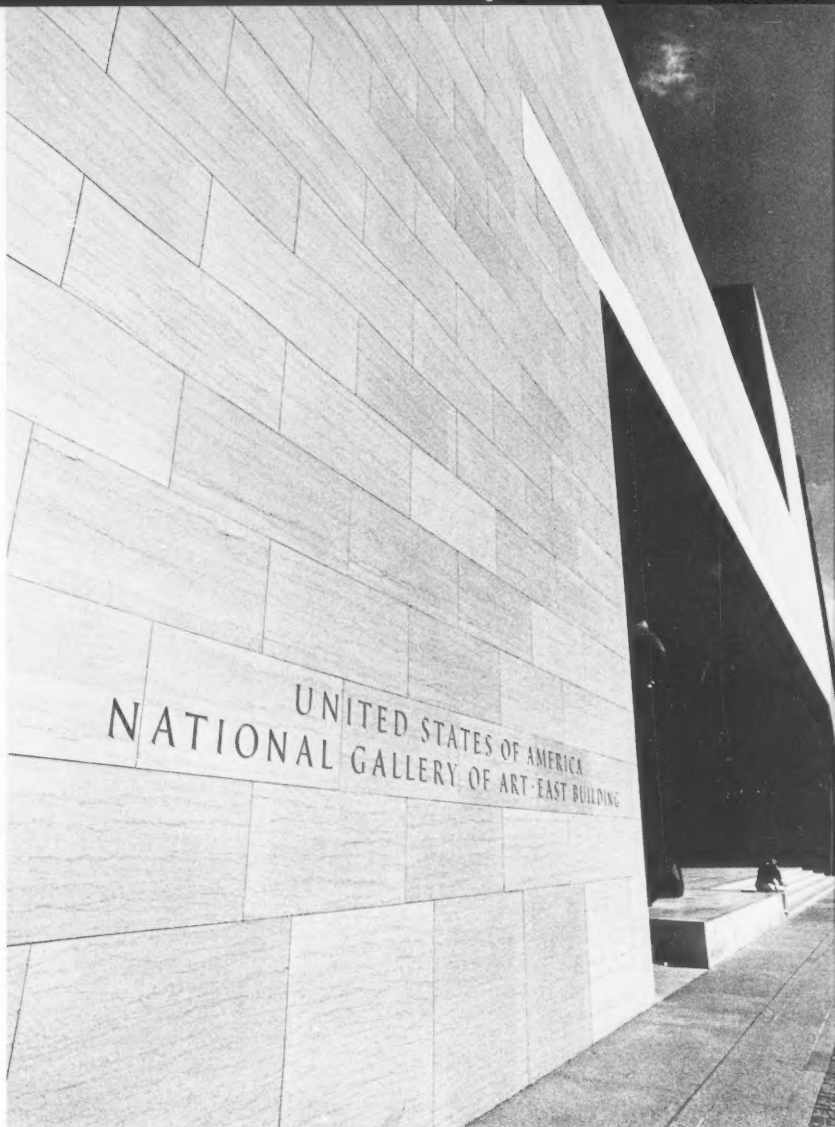
of civic action and how that could accomplish the objectives of their individual communities. Without this program, it would not have happened.

Now, look back into the early '50's, right after the war. Obviously, the country then felt the need to channel its energy, which was no longer used to fight a war, back into something constructive. Eisenhower, who was our president then, felt that was needed. So, the 1949 Housing Act supported two-thirds of the total cost of redevelopment of communities. The city and State paid the other one-third. And that made it possible for communities to look at themselves and see what their needs were.

At that time, I came to New York, and Zeckendorf had the foresight to take advantage of this Government program. So, we went in together and did a lot of work all over the United States.

Remember, at that time, many of my friends, because I belong to that age, had gone to war. They had gone to Italy, Paris, London, Rome, everywhere. And when they came home after the war they went back to places like Kalamazoo or Des Moines, Iowa, and I think they must have felt there was something lacking in their communities, after having seen Rome, Paris and London. It was a good moment.

*National Gallery of Art – East Building,
Wash., D.C.*



Photos by David Valdez

They wanted to do something for their own communities, to join with that desire of many community leaders who tried to improve themselves and improve their communities. Those are the same people that eventually became community leaders.

Glynn: How does one create a sense of community or neighborhood in a housing project?

Pei: I think architecture, in this case, comes second to the social fabric. I think the social fabric has got to be secure first, and architecture comes next. And, that's

why we failed so badly in the '50's when we undertook wholesale demolition. We tore the social fabric apart and we eliminated "slums," but look what we put back. There was sanitary housing, but there was no social fabric in it anymore. So, therefore, it took us about ten or fifteen years to learn that lesson. I'm speaking now as an architect. *Buildings are not that important – social fabric is more important.* And when you rebuild a community, one of the first things you want to preserve is that social fabric. And I don't think that there is any doubt of that anymore. I think that planners, architects of today are generally in agreement with that.



Glynn: Does that rule out large housing projects? Let me give you an example. They're talking about putting a project in the South Bronx in an area which is vacant and rubble strewn. How would you imagine the architects would go about helping to create that social fabric? Or can you?

Pei: It's going to be very difficult. I'm rather pessimistic about the South Bronx program. I think it's going to be a tough one. I think it can succeed, however, but we must be patient — it's going to take time. Unlike building buildings, to build

society, to build that social fabric takes longer, and we should be patient. And the only way we can accomplish any good results in the South Bronx is to take time. If we have the patience, if we really take it one step at a time, we can do it. But, like all things, governments are not patient; government programs, particularly, are not patient. And I think we tend to go in with too much or we don't go in at all. If we give too much, too fast, we will not succeed. Look at our New Towns programs. We have built several "new towns," quite a number of "new towns" all over the United States in the last ten years. None of them have really succeeded. And the ones that fared,

probably reasonably well, are the ones that were built for fairly affluent communities, where that social fabric is not so important.

Glynn: They have other amenities.

Pei: Yes. These people don't have to live their whole lives in that community. They work outside. They go to Europe. They do things.

But, the South Bronx is different. These people, their whole lives are going to be right there in the South Bronx, so the social fabric has got to be the first concern.

It's got to be knitted together. It's going to take time. And I don't think there's an easy way. I would find it difficult as an architect to find the solution for the South Bronx. I think it takes others who are more involved in other areas of concern to come into the picture first.

Glynn: Would you think, for example, it would have to be a concerted economic development effort to create jobs along with the housing?

Pei: Everything all together – and don't build it too quickly because we won't be able to make it work. It takes time. The only counsel I have, because, I guess, of my lack of confidence in it, is time. And I would take it a step at a time. It's not an architectural problem, not yet. It's a social problem.

Glynn: But, it's being approached, almost as an architectural problem or an urban design problem. That's strange.

Pei: All Government programs want to see results, and they want to see results within the administration's lifespan, you know; two years, four years – that's not possible. I'm pessimistic about the South Bronx plan for that reason.

Glynn: Another question I have, and this concerns your work involving Bedford-Stuyvesant. How does community input work in design? What are the factors in getting community input?

Pei: It's extremely important. Without that input, the Superblock Program in Bedford-Stuyvesant would not have succeeded. I think it's considered a success. The fact that Franklin Thomas is now the president of the Ford Foundation pleases me very much because he worked with us.

Glynn: Could you describe that process? Did you take a design to the community, and ask them, "What do you think of it?" or did you first go to the community and say, "What would be the kinds of things you want happening?"

Pei: Well, first of all, remember how this began. It was Robert Kennedy who started the whole thing. He came to me as he had gone to others in various other disciplines and said, "I want to do something for the City of New York and therefore, the State of New York." And, he explained to me why he had picked Bedford-Stuyvesant as a demonstration area. It was because it was the biggest challenge. It has the largest minority population in New York State, larger than Harlem, something I didn't know until I went there. And, interestingly enough, it also has a higher percentage of homeownership than Harlem. Harlem was seven percent at that time, Bed-Stuy over twenty percent. I didn't know that, but he, as a politician, had discovered that. So he said, "Well, if I gave you this problem, Bedford-Stuyvesant, do you have any suggestions to make?" I said, "Well, if you give me a week, I'll come back to you," which I did. I got some people together from the office and we spent a whole week in Bed-Stuy, walking, talking and looking. And we came back with a number of propositions to Mr. Kennedy and he bought them. Among them was the Superblock. He approved it. He said, "Well, let's go ahead. You come up with ideas, and I'll find the money." And he did find the money, by the way, from the Astor Foundation, and we came up with the ideas.

The first step that we took, together, was to involve the community. And at that time, Frank Thomas was the head of the Bedford-Stuyvesant Restoration group. He was the one that counseled that we should involve the community, at the very beginning, in selecting the site. I mean, there were so many blocks in Bed-Stuy.

You can't just arbitrarily pick some blocks and go ahead and do it, you have to involve the community. We all agreed. So, that was done. The community was called together and they picked those two blocks. Prospect Street near the Children's Museum was number one. That was a very good first step. Then another block was picked. The first was fairly middle class, chintz curtains and geraniums and all of that, and the other one was the worst you can imagine in Bed-Stuy. They had prostitution, heroin, all of that. You name it; it was there. And, they're next to each other! Very interesting. So, the community couldn't have picked a better demonstration block for us. But then, the fun began.

We said, "Well, let's find out who the block leaders are." On Prospect Street, we had no problem; we found them right away; they owned homes; they were very concerned; they very quickly organized a block committee, and they became our clients. In a matter of a week or two, they were gathered together and we went to one of the homes and they started to tell us exactly what they wanted done. But, the other block was a very different matter. It took us months before we were able to get people together, because there were absentee owners. The buildings were not owned by the people who lived in them. There were a lot of welfare tenants, and it took a long time to get organized. But we did it with the help of Frank Thomas' group, we did get them organized. There they were, and they wanted something entirely different. They wanted sort of a playground; they wanted a place for the Bookmobile to come; they wanted all of these things; whereas, the other street, Prospect Street, didn't want any playgrounds at all. They didn't want the neighborhood children to come and make

a lot of noise. They wanted the cars to go by, but they didn't want them to go too fast, you know, so we had to make bumps for them. They wanted a lot of lights, safety in the streets, they said. "Bring us lights, give us trees." So we had two clients who wanted something very different, but we did involve them. It was very important. As it turned out, that was the best thing we did.

We did something else, though, that was equally important. We involved a black contractor. He was not very qualified to do a project this size. It was almost a one-half million dollar project. But, I'm so glad we did. He helped to develop a sense of "they're doing it for themselves."

Glynn: For the community.

Pei: Yes. It was a lot of trouble in the beginning, helping him finance the project and all of that, but, looking back at it, it was all worthwhile.

Another good thing we did was to involve the children living on those two blocks. We got them together and paid them to help plant some trees and pave some sidewalks. They didn't do a very good job of it, to be frank, but the fact that they were involved in it made an important difference, because none of those trees were cut. The bricks in the sidewalks were not picked up and thrown. You see, the sense of involvement was important.

So, to answer your question, I would say if you don't involve the community, you cannot succeed.

Glynn: That project seems like a rather unique project. Is anything similar to that being done?

Pei: It's a pity that it wasn't carried out further. We identified seventeen locations in Bed-Stuy alone that lent themselves to this kind of development. And we estimated that each project cost no more than one-half million dollars. So

altogether, we're talking about only \$8½ million. That was almost ten years ago now, looking back. And at that time, HUD spent almost billions. But had they only taken this up and carried it out, Bed-Stuy today would have been better for it. That's all you need. But, it wasn't picked up. That was a great shame. It was only started as a demonstration project. And I'm so confident that if this were carried out, Bed-Stuy today would have been a different place. And it doesn't take that much money. It does, however, take a lot of social action. It needs a lot of help from the communities. But, the community loves to help, and you have to have their leadership. The Bed-Stuy Restoration Corporation was very important in helping us reach these community leaders. Fortunately, it's still there, and it's still very active. So that's one of my regrets; that we were not able to further carry out a very good idea. But, I haven't given up.

Glynn: Are there other places in New York City or other cities where this type of thing could be done?

Pei: Yes. For instance, we did a rather interesting project in Philadelphia. Not like Bed-Stuy, but in many ways, equally difficult.

We took over an area called Society Hill in Philadelphia which was then a slum. The meat market was there and it was already, I would say, largely black and generally speaking, a rundown neighborhood. And the City of Philadelphia felt that something could be done about that area because it had then, many eighteenth and nineteenth century homes which were quite good homes. And they felt that it had an opportunity to become a very nice place. That was long before recycling and rehabilitation became accepted. They had

a competition, and I went in with Bill Zeckendorf and we won the competition. So, we had the opportunity to do that.

Now, Society Hill today is a fashionable place. Turned around, in ten years' time, fifteen years' time, from a slum to a fashionable address.

Glynn: Were you able to do it on a scale that made a difference in Society Hill, as opposed to Bed-Stuy where you could only do two blocks?

Pei: Yes, you see the difference in Society Hill, in that project, was that we had the full support of the city of Philadelphia, the banking institutions of Philadelphia and also Washington. So we were able to do this project. This was a very large-scale project involving ultimately more than hundreds of millions of dollars. Bed-Stuy was only three hundred and fifty to four hundred thousands dollars and it ended there. But even if a fraction of Society Hill's funds were to go into Bed-Stuy, it would have done more good, and it would have been more of a showcase. But it just wasn't seized upon, partly because Robert Kennedy died.

Glynn: It's a shame.

Pei: It really is a shame. But also, the emphasis was more on jobs and less on the environment. IBM went in and put in, I think, a semi-conductor plant. That was very good, very important.

But the physical environment of Bed-Stuy was shortchanged, unfortunately. If the Superblock project, let's say, the prototype project was carried out further today, I think Bed-Stuy might be considered a very nice place to live.

Glynn: Are architects today more conscious or more sensitive to the relationship between the physical environment and the reactions of people to

that, or, have they always been that sensitive to that?

Pei: I think architects should be more sensitive, equally sensitive to it. Too many of them are too concerned about the individual building which is designed. The talk about modernism versus post-modernism is all unimportant, it's a side issue. An individual building, the style in which it's going to be designed and built is not that important. The important thing, really, is the community. How does it affect life? So I would say this: architects should be the ones to be most concerned about it. Unfortunately, we are, as a group, not doing our job as we should.

Glynn: Is the spirit of a building more important than its making architecturally good sense? Whatever that word "spirit" means to you. I'm not sure whether I'm making myself clear, but sometimes buildings which theoretically should not work, people get excited about and they say, "Gee, that's great." There's something you can't quite put your finger on that makes that building or that complex of buildings a success.

Pei: Then it works. Then it's working. We tend to probably put too much emphasis on how a building or house or whatever that may be, how it fits, let's say, the lifestyle of the family. And that's important. But it's not everything. I think the spirit that you refer to is, in many respects, even more important. But that is a very difficult thing to define, very difficult. And I think it's also one of the many, many functions of architecture. It's not just to satisfy the time and motion, you know. You get up in the morning, how quickly can you get to the kitchen and after that, how easy is it to clean up the kitchen. That's important, but it's secondary to the spiritual, as you say, well-being; that you feel good in that place. Sometimes you may even take a few more steps and it's a better home, it's a better office, it's a better street. So, I

recognize that, but it's not easy to define what that special something is, but that's what we all search for.

Glynn: I always remember a story about a Japanese teahouse that was built several hundred years ago. It had a beautiful view of the ocean, but it was built so that when you approached the teahouse, you couldn't see the ocean. When you entered, the only way you could see the ocean was by kneeling. And, somebody asked the person who had done the building, "Why don't you show the ocean?" and he replied, "You have to have the proper reverence when you look at the ocean." And I felt that really made a lot of sense. So in a sense, it says what you're saying, that it's the approach to the thing rather than necessarily making it the easiest way possible to see a thing. In some of the work that you've done, you seem to be saying that the approach to a building or a site is as important as the actual site and view of the thing itself.

Pei: Yes. It's hard to answer this with a specific example. I think you've given one example, that is, to capture the spirit is more important than to satisfy the function. I would say they're equally important, but we tend to put too much emphasis on function, on how a building works rather than how does it affect. And I think we can satisfy this second concern in many ways, not just through the approach alone — approach is only one of many steps that one has to go through in order to create the spirit. The Japanese example you mentioned creates a spirit of reverence. Consider this: all the important temples were not in the city, but way out on top of a mountain. To get to the mountain, it can take you half a day. But to get through that puts you in the proper frame of mind to worship. You see what I mean?

Glynn: Yes.

Pei: And that, after all, is the function of the temple. So therefore, it's right. But it's certainly not terribly convenient, you know. If you only want to be convenient, you put it right next door to your office building where most people happen to be. And we tend to do that. Our churches today are very close to the center of town, but not in the East. In the East, the temples are on top of the mountain. So I think that illustrates your point better than anything I can think of. And I think in a way, that architecture must take that into consideration. And the only way you can do something really important, architecturally speaking, is to capture that spirit. It isn't always the case. A shop, for example, has to be one thing, a temple is something very different. And it isn't always that we have a temple to work on. But I wish we had something like that to do, because then, we would be more concerned about the spirit and less about the function.

Glynn: What kind of project do you have the most fun designing?

Pei: I like working on a project that involves a lot of people; not a lot of people working with me, but a lot of people reacting to what I work on. And that's why I like to do things that are public. Not because public buildings are more public, per se, but because public buildings involve a lot of people, a cross section of people. And I like that. For that reason, I don't enjoy doing a very fine project for a very rich man; that's only for him to enjoy. That doesn't interest me as much as doing something for society in general.

Now, the museum in Washington happened to be a project that was made possible through the generosity of the Mellons. But that's not why I became interested in it. Of course, Mellon made it possible, but the fact that the building is

going to be visited by many people interests me. You see what I mean? So, I would say, that's the kind of project I like, something that can affect the lives of the largest number of people. To do a plaything for a very rich man interests me less.

Glynn: Do you find a big difference between designing here and designing abroad? Is there a different attitude, let's say, when you do a project over in Europe or Asia as opposed to a project here, in this country?

Pei: Very different. Societies are different. We have done most of our work here in the United States. We do have projects in the East and the Middle East and some also in Europe. But they are a small part of our practice, so I can't speak with the same kind of certainty about foreign projects that I can talk about projects here in the United States. This is a society I know, and as such, I think I can do better here. But there is no question that the few projects we've attempted abroad all have had different challenges. We're about to do some work in China, you've probably read about it, and there's much talk about China today. I think our approach to these projects is going to be entirely different from the way we approach our projects here. I know that already.

Now, the Chinese community I know well, because I was born there and I was educated there before I came to the United States. But I find myself having to learn all over again, to find out what Chinese society is like today.

Glynn: It has changed.

Pei: Yes, it's changed in the last thirty years. So therefore, it must grow out of the society. And unless you know the society

well, you cannot really do good work there. And too, so many American architects have gone abroad to do work in the last ten to twenty years, particularly in the Middle East, yet, how many of them really concern themselves with the society they go into? Too few. Consequently, the results are not good, too superficial. How many of us know about Iran? How many of us anticipated Iran to develop, politically, as it has in the last several months? Very few. That shows how little we know about Iran, you see. And yet, many, many architects have done work there. So, I think that architecture is serious business, and if you want to do well, you really have to make a point of studying the life of the people, first. Technology comes second.

Glynn: What you're saying almost sounds as if sociology really impinges upon architecture.

Pei: Absolutely. Architecture reflects life, and if you don't know the life of that particular community or country, the only thing you can offer them is technology and that means no life, and that means failure, you cannot succeed.

Glynn: In the last five or six years, all of a sudden, we've become energy conscious. Architects before, and society before, had never really been concerned about energy. Now, we're becoming energy conscious and we're also becoming conscious of green space. Do you find that, both in your work and other architectural work, there's a change in emphasis in which energy conservation and allowing for green space is a more important factor than it has been before?

Pei: Yes, I think that's a very good development. I think our buildings, until this energy consciousness was developed, had become more and more unrelated to life, hermetically sealed from life. It was not a good direction. I think that buildings should look natural and they became more and more unnatural. I think this turn of

events will help to bring our buildings back into something that people can look at and understand instead of saying, "Gosh, how does it work?" I think the energy conservation brings common sense back to architecture, and therefore, our architecture, the buildings, will become more understandable to people. When you see an hermetically sealed building, you wonder, don't you? You're not an architect, so you wonder. There's something unnatural about it. But, we've come to accept it, these glass boxes, we've come to accept it.

Glynn: You can't open the window.

Pei: You can't open the window, and you wonder, but somehow you have faith in science, and that's blind faith. Now, today, I think we once again question it. Is it necessary to have a building built that way? And this, once again, turns the architect's mind back to common sense architecture. I've always enjoyed designing buildings that take into consideration nature, the movement of the sun, the change of the seasons — these are much more interesting. But, if you don't have those variables to deal with, you say, we'll cool it in the summer, we'll heat it in the winter. It tends to make the building so opaque.

So, I like the idea, but it's going to be difficult for us to change our habits. . . for architects also. Because it's so much easier to let science solve our problems. The result is that we miss a lot. I think buildings designed by taking into consideration the changes in nature, generally speaking, are much more interesting buildings than those which are not. so. I welcome it, but we'll have to change our habits of thinking.



2-inch heat loop, no domestic use

Housing Projects Use Geothermal Heating

by Phyllis J. Hall

Tenants at an 80-unit HUD-assisted housing project for the elderly in Klamath Falls, Oregon, pay only \$12 a month for heat and electricity. Their secret is underground geothermal energy.

Kingswood Apartments, owned by Steve and Frank Graves, was built 3 years ago under the Section 23 Revised Program sponsored by the Klamath Housing Authority. Included in the specifications was a \$100,000 geothermal heating system which is now saving about \$20,000 a year in heat bills.

The system includes an eight-inch-diameter, 1,400-foot well; a 15 horsepower turbine pump set at 60 feet; four-inch plastic pipe reduced to one and a half inches at the service entrance; and copper tubing leading to individual forced-air heat exchangers controlled by thermostats. Well water is circulated through the system at 123 degrees Fahrenheit and wasted to the storm sewer. The annual pump electrical charge and system maintenance cost is about \$500. The capital costs will be amortized in 5 years.

Ed Rasner, Klamath Housing Authority Executive Director, is now working on a turnkey project which will be geothermally heated, if the right land can be found, and Portland Area Office staff are encouraging other developers in the area to use this valuable natural resource.

Direct use of well water for heating and domestic use

3/4" domestic loop

System Popular in Area

Unfortunately, this kind of low-cost system can't be duplicated in very many locations, but for Klamath Falls, it's a common method used by Indians and Anglo sheepherders long before HUD, the U.S. Department of Energy, or the energy crisis existed. Today, much of the town is heated by naturally-hot water, including single-family homes, apartments, schools, colleges, churches, hospitals, and commercial buildings. It is used to fill the city swimming pool; wash clothes in commercial laundries; melt snow from the streets (take note, Chicago); keep floors from freezing in a cold storage plant; accelerate the curing of concrete; and pasteurize milk in a creamery.

Klamath Falls (population 17,000) sits where the Klamath River falls out of Upper Klamath Lake in the Klamath Basin and heads off through the Klamath Mountains on its way to the California coast. It also sits on what engineers call a Known Geothermal Resource Area (KGRA). Underneath the city is one, and possibly two, large geothermal reservoirs with water temperatures between 70-220 degrees Fahrenheit. Geologists think the water originates as seepage from the nearby volcanic Cascades to the north and west.

Several variations are used to get space heat from the water, but basically, either

cold city water is run down pipes to be heated and returned, or hot water is pumped up and run through a heat exchanger system. It is then either wasted to the storm sewer, or preferably, recirculated through the well for reheating. More sophisticated systems have automatic zone controls, baseboard convectors, hot water forced-air with air conditioning, and by-pass circuits for domestic hot water, if the temperatures are high enough.

The most common failure of these systems is corrosion of the pipes in the well. The most common, economical, and effective method of reducing corrosion is to pour used motor oil down the well, and thus, reuse another valuable resource. Compared to the alternatives available in Klamath Falls, electricity, natural gas and fuel oil, geothermal heat is cheaper or competitive, depending upon how deep the well must go and how many people hook up to it. If we all could get by on \$12 a month, wouldn't it make living with volcanoes and earthquakes almost worth it?

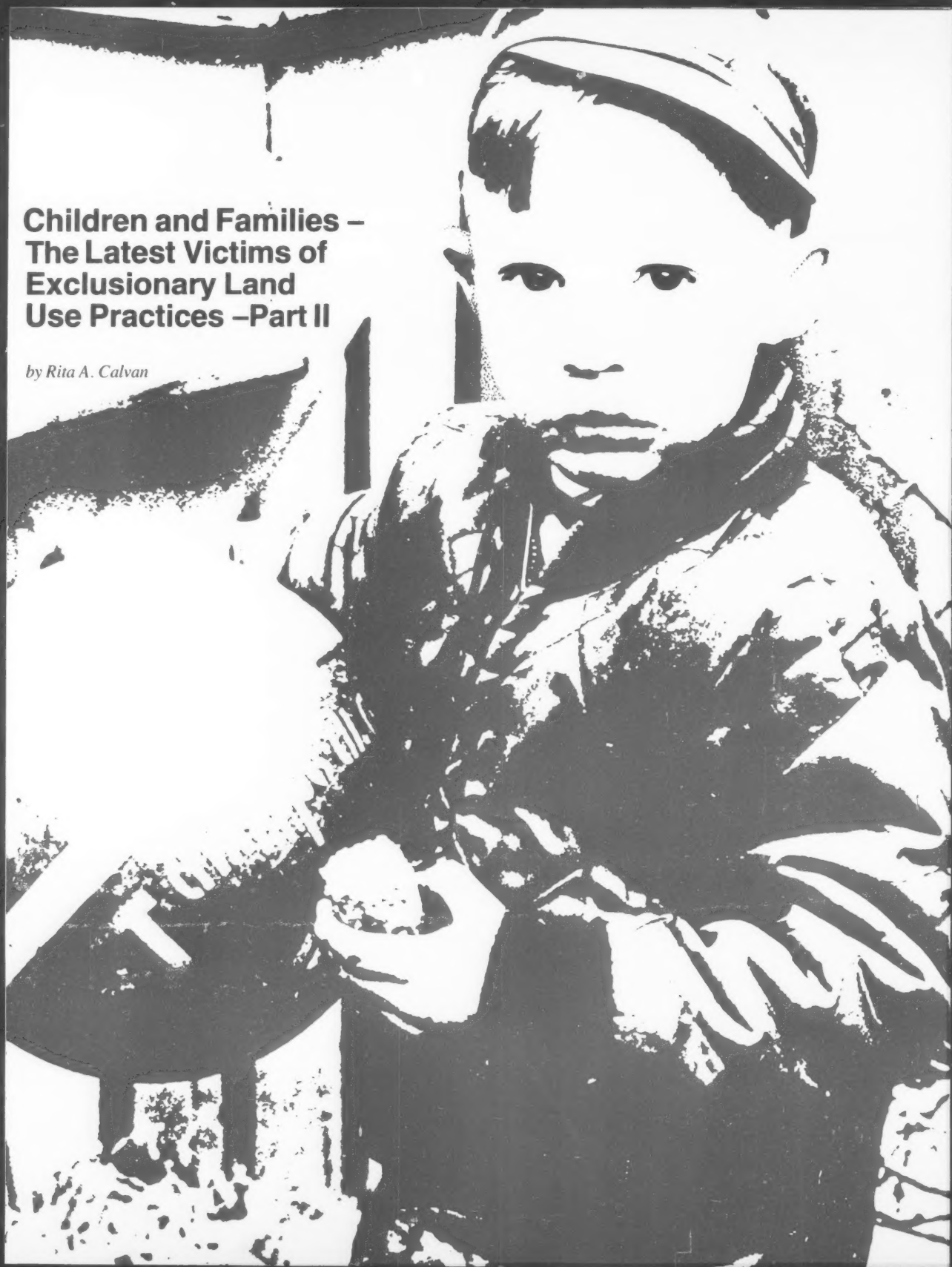
Further details can be obtained by writing the Geo-Heat Utilization Center, Oregon Institute of Technology, Klamath Falls, Oregon 97601.

Ms. Hall is Special Assistant to the Area Manager, Portland Area Office of HUD.



**Children and Families –
The Latest Victims of
Exclusionary Land
Use Practices –Part II**

by Rita A. Calvan



As the observance of the International Year of the Child draws to a close, it is appropriate that we examine remedies to the problem of exclusionary land use practices that victimize children and families. Last month, in the first half of this article, Ms. Calvin defined the problem and explored its significance.

Local government

Land use control has long been acknowledged as being within the appropriate purview of local government. Few would dispute the desirability of local decisionmaking which seeks to promote public health, safety, welfare and morals. We assume local land use regulation to be not only legally defensible, but also desirable as a practical matter. After all, where else could a community's needs be addressed more adequately than at the local level, where officials live and deal directly with the problems they are called upon to solve?

The problem with local remedies, of course, is that when a particular social issue is not confined to one or a few communities, local solutions may ultimately reach only a very small portion of the affected population. Nevertheless, local ordinances banning discrimination against children are one approach to dealing with this pressing concern.

Among the communities that have already passed such ordinances are the cities of San Francisco and Berkeley, California. The San Francisco ordinance prohibits discrimination against families with minor children in the rental or leasing of certain residential property. Units with a certain minimum floor area and buildings serving exclusively persons 62 years of age and older are exempted from the requirements of the ordinance. Penalties for violations are specified, and the ordinance is subject both to annual review and to automatic expiration.

Information obtained in interviews with various persons involved in the issue revealed existence of an anti-child discrimination ordinance (presently being challenged in the courts) in Everett, Washington and another in Howard County, Maryland. In Howard County, complexes which have more than 300 units must make at least 80 percent of them available to families. Movements toward such ordinances are apparently underway in Cincinnati; Ohio; Dallas, Texas and Dade County, Florida.

A Dade County (Florida) proposal is designed to protect families with children under the age of 18 years while also insuring that businesses would not have to enter into voidable contracts with persons not legally competent to contract.

In Atlanta, Georgia a group called Hope (Housing Opportunity and Equality) for Children has organized for the purpose of ending child discrimination in private rental housing in DeKalb County. Information gathered by this group documents the disparity that is found among different areas of the City in the extent to which children are excluded from rental housing and illustrates that such policies are having a serious impact on school enrollments and racial balance.

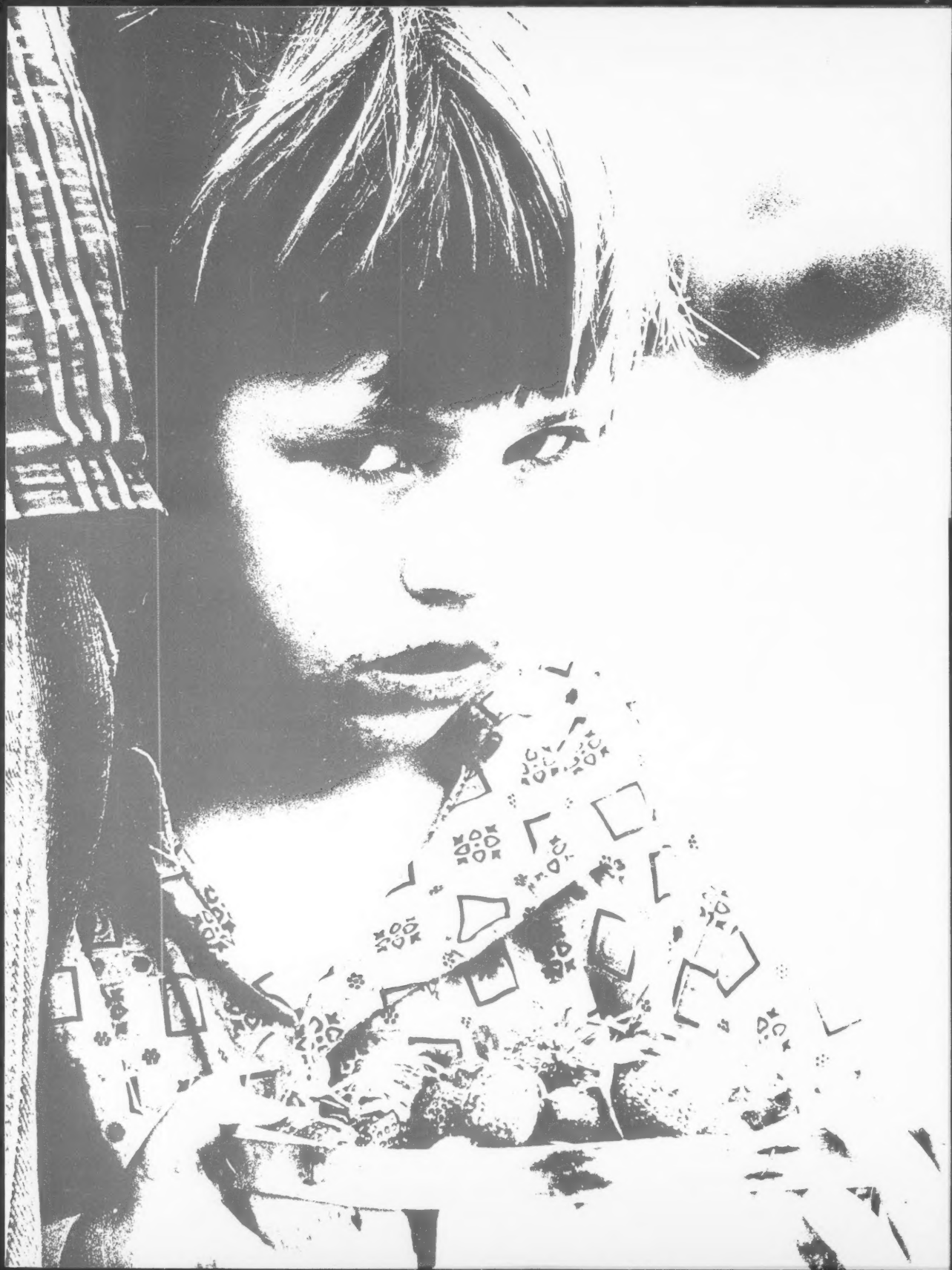
Organizers of Hope for children have asked the DeKalb County Commission to pass an ordinance requiring construction of or conversion to "adults only" projects to be specifically approved by the Commission. In a recent interview Anne Keating, president of Hope for children, indicated that since the DeKalb County Commission and the Georgia State legislature have both failed to act on this problem, an earlier suit against an out-of-State company which operates adults only rental housing in DeKalb County will be reinstituted in Federal Court. The American Civil Liberties Union has indicated an intention to handle a suit against the same company (Monumental Properties) brought by a group of families

in Prince George's County, Maryland.

It is important to consider at least briefly government actions that encourage the exclusion of children in communities. Motivated by the desire to control educational spending, localities may frequently restrict the number of bedrooms in multiple unit dwellings. This can be accomplished through a requirement of the zoning law, through conditioning the granting of special permits or by informal pressure. The typical situation in such communities is that all single-family homes are required to be large and all apartments must be small. The result is total exclusion of families with children in rental housing, a situation Norman Williams finds "highly dubious in constitutional law." Though the courts have gone both ways on this issue, one of the better known cases which struck down such zoning as exclusionary is *Molino v. Mayor & Council of Borough of Glassboro*. The combination of large lot zoning for single-family homes and bedroom restrictions in multiple family dwellings assures that not only children, but also the poor, will be kept off the land.

Fiscal restraint is also seen as the reason why many communities today are eager to have special senior citizen facilities built within their boundaries. Localities may create special districts or issue special permits for such facilities and may even provide the added incentive of a density bonus. Norman Williams has analyzed these efforts and the court cases that have grown out of them and found "both some internal contradictions and some unresolved problems." It is Williams' view that, "The long discussions of the need for special housing for the elderly are simply legally irrelevant to the central issue of the exclusion of younger families with children.

Localities also exercise control over the ability of families with children to obtain



housing through their definitions of what constitutes a "family" and their say about which individuals may live together in one dwelling. In cases such as *Moore v. City of East Cleveland* we see how such policies affect children who are part of an extended family living together under the same roof.

Typically, localities allow apartment managers to set their own restrictions on whether children may share bedrooms with siblings of the opposite sex. There is reason to consider whether children are better off in shabbier housing where they have separate bedrooms, whether they would benefit from a higher quality unit where they are somewhat more crowded, or whether they should at least have freedom of choice in the matter.

These later points may not fit cleanly into what has been termed a discussion of remedies, but they are important to understanding some of the things that ought not be done if families with children are to be afforded not only decent, safe and sanitary housing, but also equality of opportunity.

State Government

At least six States (Arizona, Delaware, Illinois, Massachusetts, New Jersey and New York) have statutes that prohibit discrimination in housing against families because of the presence of children. Other States, such as Montana and New Hampshire, and the District of Columbia prohibit discrimination on the basis of age.

Though its wording appears to be broad and comprehensive, the District of Columbia's Human Rights Law has offered little comfort to children. At least during the tenure of former Mayor Walter Washington it was interpreted as not barring landlords from carrying out adults only policies. Similarly, the Montana statute presents problems in interpretation, because it allows age discrimination based on "reasonable

grounds." It would appear that a Michigan law which forbids discrimination in housing on the basis of factors unrelated to an individual's capacity to "acquire, rent or maintain property" may cover child discrimination.

In California, where State law forbids "arbitrary" discrimination, the courts upheld the right of a landlord to discriminate against male children over five years of age. In a more recent case that has been followed closely by those advocating an end to child discrimination, oral arguments were heard on March 29, 1979, in a District Court of Appeals in California in connection with a case arising from an eviction of a couple who had a child while living in an adults only complex in Marina del Rey (*Marina Point, Ltd. v. Stephen Wolfson, et. al.*)*. The Wolfson family lost their case at the trial level, but won last December in an appellate court decision that has since been vacated.

The oldest of the State statutes specifically barring housing discrimination against children is that passed by the State of New Jersey in 1898. It is believed that such statutes can provide, according to Dennis Shaw, "a clear and final solution to the problem." Shaw adds that State laws do not have to be based upon a specific constitutionally delegated power and that such statutes have repeatedly been upheld in the courts as not violative of equal protection and due process clauses.

The authors of a *DePaul Law Review* article have analyzed the Illinois statute and found it to be seriously deficient. Following are some of the conclusions reached about the Illinois and other existing State laws.

*The California State Appeals Court recently handed down a ruling in this case which went against the plaintiffs. They have petitioned the State Supreme Court to hear the case.

- The Illinois statute is not widely known, either by the general public or by those who are called upon to enforce it.
- The statutes of Illinois, New York and New Jersey – the three earliest State laws enacted – do not provide for effective enforcement mechanisms. Only minimal fines are called for in those States.
- The Arizona statute is somewhat more effective because it provides for both fines and imprisonment, and sentences increase with subsequent offenses. Discriminatory advertising is also prohibited in Arizona.
- The Massachusetts law is practical in that it allows exceptions for buildings with small numbers of units and for buildings with three or fewer units where elderly or infirm persons are housed.
- Delaware is the only State which offers prospective tenants the right to sue and obtain damages for child discrimination. However, it is noted that damages are difficult to prove, and thus such a provision does not have the deterrent effect of statutory punitive damages.

Messrs. O'Brien and Fitzgerald emphasize that not one existing State statute contains all four of what they consider to be essential elements for an effective State law. These four recommended ingredients are.

1. prohibition of discrimination in housing because of family status, including prohibitions against discriminatory advertising and against higher rent charges for families with children;
2. an exclusion for buildings which contain three or fewer dwellings with at least one unit occupied by an elderly or infirm person;
3. criminal sanctions which include fines and prison sentences for violators;
4. a mechanism for effective enforcement.

An improved and expanded Illinois Children In Housing Act drafted by O'Brien and Fitzgerald would embody these four concepts.

In California, State Senator David Roberti reintroduced legislation to protect families with children, young adults and senior citizens against age-based housing discrimination. Similar legislation died in the State Senate during the previous session. Some supporters of the Roberti proposals believe they have even less chance of passage now than before. In California, tenants are seen as powerless, in contrast to members of the real estate industry, who exercise considerable influence over the legislature.

As has been previously noted, an effort to pass an anti-child discrimination statute in the State of Georgia has also been unsuccessful thus far.

Shaw's categorization of practices which discriminate against families with children distinguishes the restrictive covenant as requiring the power of the State judiciary to compel compliance. Shaw has analyzed two cases dealing with the constitutionality of restrictive covenants involving children. Both are from States with large numbers of retired persons — Arizona and Florida — and each court involved reached a conclusion opposite to that of the other.

In *Riley v. Stoves* a covenant barring children under the age of 21 from a mobile home community for retirees was found constitutional by an Arizona appeals court. In contrast, a Florida court of appeals found a restriction prohibiting children under the age of 12 from a condominium to be an unconstitutional interference with an owner's rights to marry and procreate (*Franklin v. White Egret Condominium, Inc.*).

Subsequent to *Riley v. Stoves* the Arizona State legislature acted in 1975 to prohibit rental of a dwelling to a family with children if a covenant restricting children is in effect. The result of this action is that homeowners in age restricted subdivisions are prohibited from renting

to families with children, while such age discrimination is not tolerated in the general rental market.

In Alaska a question has arisen recently as to whether the legislature has intended to approve of discrimination against children in housing. While the State's civil rights statute says that it is a civil right to be able to obtain housing without discrimination on the basis of pregnancy or parenthood, such wording is missing from a subsequent section on discrimination in the use, sale, lease or rental of **real property**.

The foregoing depicts a somewhat confused picture of State activity and illustrates that State laws dealing with child discrimination must be clearly worded and carefully drafted if they are to serve the purpose of ending the exclusion of families and children from housing.

Federal Government

The role of the Federal Government in the debate over discrimination against children and families in housing is perhaps less clear-cut than that of States and localities. There has long been bias in many quarters against any strong Federal presence in what are seen as local land use decisions.

Although Federal statutes such as the Civil Rights Acts of 1866 and 1964, the Fair Housing Act and the Age Discrimination Act do not directly address the issue of discrimination against children in housing, some feel that the case for statutorily prohibited racial or sexual discrimination as an **effect** of child discrimination can be made. Many also would argue that there are ample constitutional bases on which to fight child discrimination in the courts (equal protection, due process, right to travel, freedom to marry and procreate). A good discussion of pertinent questions arising under the U.S. Constitution and Federal statutes is found in Dennis Shaw's recent article. It is interesting to note that the

Fair Housing Amendments Act of 1979, currently pending in the House and Senate Judiciary Committees, does not propose, as drafted, to deal with the issue of child discrimination.

The fact that a problem may be nationwide in scope does not necessarily mean that it can be dealt with most effectively at the Federal level. Nevertheless, the Federal Government could be expected at least to study problems that appear to be affecting a large number of people in an effort to obtain comprehensive data. It is suggested that the Federal level should accept the responsibility for such a nationwide study on discrimination against children and families in housing at this time. There is some indication that the U.S. Commission on Civil Rights maintains an interest in the topic and will begin some sort of study in the near future. Such a study may include an examination of the extent to which another Federal agency carries out its statutory responsibilities in the one area in which Federal law clearly prohibits discrimination against children in housing.

The National Housing Act has had, since 1950, a provision that requires landlords to certify that they do not discriminate against families with children in housing built with federally insured mortgage loans.

Several people interviewed in conjunction with preparation of the paper on which this article is based stated the belief in or knowledge of cases in which this requirement is being violated. Representatives of the California Fair Housing Coalition for Children indicated that they have joined with other plaintiffs in a suit against the Don Royale Co. This was filed in Los Angeles County Superior Court on October 5, 1978, and involves a project insured by the Federal Housing Administration of the U.S. Department of

Housing and Urban Development. Surely effective enforcement of the one Federal statute that clearly prohibits child discrimination would be an appropriate step toward alleviating this exclusionary practice.

In contrast to this provision of the National Housing Act, the action by Congress to create special programs for housing the elderly has been cited by some as lending credence to the practice of child discrimination. The mere fact that the Congress established the Section 202 program seems to encourage the thinking that it is desirable for children and the aged to live apart.

Over the years since the Federal Government began to provide special funds for low-income housing, communities have attempted to fulfill their responsibilities to the poor by devoting as many units as possible to the elderly poor and avoiding family housing. The U.S. Department of Housing and Urban Development has gotten tough with this problem by denying additional elderly units to localities until more low-income family housing is provided and by cutting off Community Development Block Grant funds to localities that refuse to respond to the housing needs of all groups.

The question of whether new Federal legislation is necessary or desirable to add children and their families to the categories of persons protected by Federal fair housing laws could be debated at some length. It is not within the scope of this article to resolve the debate, but rather only to raise the question. As a beginning, however, surely a federally-sponsored study of the nature and extent of child discrimination in housing would be useful and enforcement of existing Federal anti-child discrimination requirements appropriate.

Conclusion

The fact that State law banning discrimination against families with children in rental housing has been in existence since before the turn of the century indicates that the problem is not entirely a new one. It has grown to be more serious, however, as attitudes toward child-rearing have changed, as the number of elderly in the U.S. population has increased and as shortages in available rental housing have grown more acute in many areas.

Any policy or practice that denies certain categories of people the opportunity to live where they choose should be of concern to members of the planning profession. While exclusion is both a moral and a legal issue, in practice it further complicates the process of allocating scarce housing resources so that the needs of all are met. Even if we could decide the degree to which people should be protected in their desire to insulate themselves from everything they do not like, we cannot presently afford the luxury of so protecting those who wish to be free of children. After all, we have never been able to provide enough decent, safe and sanitary housing to satisfy the needs of everyone.

Current trends would seem to indicate that this problem will continue and perhaps spread if action is not taken to deal with it. Even with our lowered birth rate, the shortage of multifamily housing and lack of private sector activity in developing multifamily rental units will continue to constrain the housing choices of young families at a time when homeownership is no longer a viable option for many.

An energy crisis which further increases operating costs for landlords may encourage many to try and cut their losses by avoiding the higher maintenance costs they believe are caused by children. Conversion to condominiums will be the


way out for some, and this will cut even deeper into the supply of affordable rental housing for young families.

Localities may encounter fiscal dislocations as some have to close underutilized schools at an even faster rate than is now happening and others, those more receptive to children, have to provide educational services for families squeezed out of areas where strong anti-child attitudes prevail. Finally, the strides we have made toward racial integration may be threatened by this new device for keeping minorities, which more frequently have children present in their households and are more often housing-deprived, out of white neighborhoods.

Hopefully, more communities and States where child discrimination is a problem will take a close look at the issue and apply some practical and effective solutions. Existing State and local remedies serve as examples both of what should and of what should not be done. Planners will be called upon to assist in this process and to help balance the needs of one group against the wishes of another. In the debate, planners and others will have to consider whether we want our communities to be made up of isolated enclaves where the childless and the elderly live in quiet and solitude and families with children see only other families with other children.

The interdependent roles that we have created for ourselves in modern society require that we each exercise a certain degree of tolerance for others. All the ordinances and statutes and tools of the planning profession cannot produce harmony in communities where at least some of that old-fashioned virtue is not present.

Ms. Calvin is a special assistant to the HUD Secretary.



Back To The Caves?

by Ron Scammell

Photograph by David Valdez

The following article is reprinted from Habitat, a quarterly publication of Central Mortgage and Housing Corporation, Ottawa, Canada.

Ask a geotechnical engineer about an innovative, effective way of conserving energy on a large scale and what kind of an answer would you expect?

"I think we should go back to the caves," would be the reply of Jean Claude Roegiers, a professor of civil engineering at the University of Toronto (U. of T.).

He's referring, albeit tongue in cheek, to a plan he and U. of T. colleague, John Timusk, have to encourage the use of underground housing as a major method of reducing domestic energy consumption. Since about 25 percent of all the energy consumed in Canada is used to heat buildings, it's an idea that deserves serious consideration.

Although building underground for commercial and industrial complexes is common — underground shopping malls and parking garages can be found in most major cities — underground residential housing is a new phenomenon. Dr. Roegiers says with confidence that "underground homes could save 50 percent on energy, for sure." Because of the insulating properties of earth, underground homes would require far less heat in winter and eliminate the need for air conditioning in summer, according to Roegiers. He also suggests that in some cases it might be possible to eliminate heating costs altogether by using the heat

generated from lighting and the human body.

To prove their point the U. of T. scientists would like to build an experimental underground house and carefully monitor its performance. They propose two types of underground homes: one partly submerged that would be covered with soil from the excavation and would feature side windows, and the other fully submerged with a central courtyard open to the sky. This model has more windows inside than a conventional house says Roegiers.

Although the experimental models would use conventional methods of heating and lighting, Roegiers thinks that eventually such homes could be made completely energy self-sufficient with the use of a solar energy system.

"They could be built in areas where there is too much noise or pollution, they would have more privacy, prevent the spread of fires, and last longer because they wouldn't be subject to extreme weather conditions."

These qualities would allow higher density development in cities, according to Roegiers, because they could be built touching one another without the awareness of the inhabitants. And to illustrate how underground housing has been successfully employed in an area otherwise unsuitable for above ground housing, he refers to an elementary school in New Mexico which was built next to a military air base.

As for technical difficulties that would be encountered, Roegiers says they are the

least of their problems. "We don't claim any new technology," he says. Their underground home would require an arched roof to support the weight of the soil, and special care would have to be taken to shield the structure from water. Though the cost of construction would be about 10 percent more than for a conventional home, he claims that this would be offset eventually by the energy savings.

Thus far Dr. Roegiers and Dr. Timusk have been unable to secure funding from either government or private business for their experimental home.

"The problem," says Roegiers, "is not one of technology, but money. In Canada all the money is put into solar energy research, but nothing is spent on this kind of project. Before underground homes can be made attractive to buyers and bankers alike, you have to build a few models to show that it can work."

There is far more interest in the United States in underground buildings, says Roegiers, referring to a U.S. government-funded project in Arizona to build an underground village of 15 to 20 homes. There is also an Underground Building Society in the U.S., based at the University of Minnesota, which itself has a newly completed underground bookstore and administration building. About his own project Roegiers says flatly: "If there's no funding in the next six or seven months, we'll drop the whole thing."

Another major hurdle to be overcome if underground homes are to gain wide acceptance is a psychological one. Although underground dwellings have been used for centuries — for over 1,000 years the inhabitants of the Middle Eastern city of Petra lived in caves of red

sandstone — it remains to be seen whether the modern North American can be convinced that underground living can be as pleasurable as living on the surface. Roegiers says that once people see underground homes and the natural light they receive, they are no longer bothered by the idea.

Lawrence Palmer, a research officer in the Building Research Division of the National Research Council, says that although people are not now prepared to accept underground homes, studies have shown that people "simply don't mind" when they experience underground working or living. Citing the case of the underground school in New Mexico, he says the performance levels of the students didn't decline. In fact, they improved slightly.

Dr. Palmer says that there are many different designs for underground homes, and most have entrances from ground level. He feels that fully underground homes with entrances that people must walk down into would be difficult to sell because people are "psychologically adverse to walking down to something." Because of this he says the term "earth covered" is being stressed instead of the term "underground" when referring to housing below the surface.

While scientist Palmer believes that underground homes would be sold on the basis of reduced energy costs, he is cautious about saying how much energy could be saved overall with an underground home. "This is something that needs to be looked at very closely. Right now there's a great debate going on about percent energy savings."

Though there may be uncertainty about how much energy an underground home would save compared to a conventional one, it remains an intriguing concept. And if energy costs continue to rise as rapidly as they have, it may not be long before many people will indeed want to consider "returning to the caves."

Ron Scammell is editor of Like It Is Magazine.



Chico Housing Improvement Program

by Fran Wagstaff

The Chico Housing Improvement Program (CHIP) is a private, nonprofit corporation designed to provide major housing rehabilitation services for low-income homeowners. Founded in 1972, it is located in Chico, California, the largest city in Butte County, one of the most rapidly growing regions in the State. The area in the Northern Sacramento River Valley, with long, hot summers and cool rainy winters, is one of the richest agricultural areas in California. There are numerous creeks, lakes and swimming holes and an abundance of outdoor recreation opportunities. These, and the generally slower pace of living, make the

area an escape from crowds, crime rates, pressures and pollution. In January 1978, Butte County had 50,823 households (120,000 people); its rate of growth was projected to be 85,600 households by the year 2000.

To the area's migrants, the City of Chico is especially attractive. With a 2400 acre municipal park and easy accessibility to a wide range of hunting, boating, fishing, skiing and camping areas, it has the allure of a rural environment.



Housing

California State University Chico (CSUC) is a major contributor to the city's housing problems. Its recent growth to more than 13,000 mainly nonresident students and the coinciding growth of the area's many businesses have contributed substantially to a severe housing shortage, particularly for low-income groups. A recent survey by California Housing and Community Development found a vacancy rate of only 2.5 percent.

Despite the relative affluence of many newcomers and many of those associated with the University, the county is a poverty area. The median annual income of \$11,400, is substantially below that of the State and the Nation. Chico has been labeled an area of "chronic unemployment" by the U.S. Department of Labor. The most recent survey found a 10.29 percent unemployment rate; the seasonal fluctuation is sometimes considerably higher.

Through CHIP, the city hopes to provide services that will make it possible for low-income families to maintain and continue to live in the older, owner-occupied homes that constitute a major share of the low-income housing available in the area. Housing that might otherwise be converted into student housing or torn down to make room for students' units has proliferated in recent years.

It is difficult for low- and moderate-income owners to rehabilitate their homes. Banks have in the past and continue to redline low-income areas while private contractors show little interest in rehab, finding higher profit margins in new construction. The CHIP program, working in cooperation with the City of Chico and CSUC, is designed to make major housing rehabilitation affordable for even very low-income families who could otherwise manage only the most essential repairs.

Program's Thrust

The key to the CHIP program is its ability to make major use of the labor of CSUC students. Students are recruited into a special service learning program geared specifically for housing rehabilitation. They receive academic credit from the University for participating in an on-the-job instruction program, supplemented by weekly classes and staff meetings.

They are taught all types of major housing repairs and learn a variety of technical skills. Moreover, they are able to practice those skills in a realistic work setting while still remaining within a supportive educational setting. In addition to practical training and academic credits, they get great personal satisfaction from the opportunity to make tangible contributions to the community.

The City of Chico has recognized the need for assisting the low-income and elderly with their housing problems. The city has an additional interest in fostering voluntary compliance with the building codes. It has therefore come to the assistance of the CHIP program, funding administrative costs and establishing a loan fund for its clients. CHIP in turn has helped with building code enforcement by stipulating as a condition of its services that housing it improves meet code standards.

ACTION

Aside from the city and the university, the most significant contributor to CHIP's success has been ACTION, through its University Year for ACTION (UYA) program. Through this program, CHIP has, for the past 5 years, received funding to provide a small stipend to students who volunteer for a full year. This existence of a year-round core pool of volunteer labor has provided leverage for the acquisition of many other resources, including much of the financing made available to the program.

Program Participants

The low-income homeowners who make use of CHIP's services are required to pay

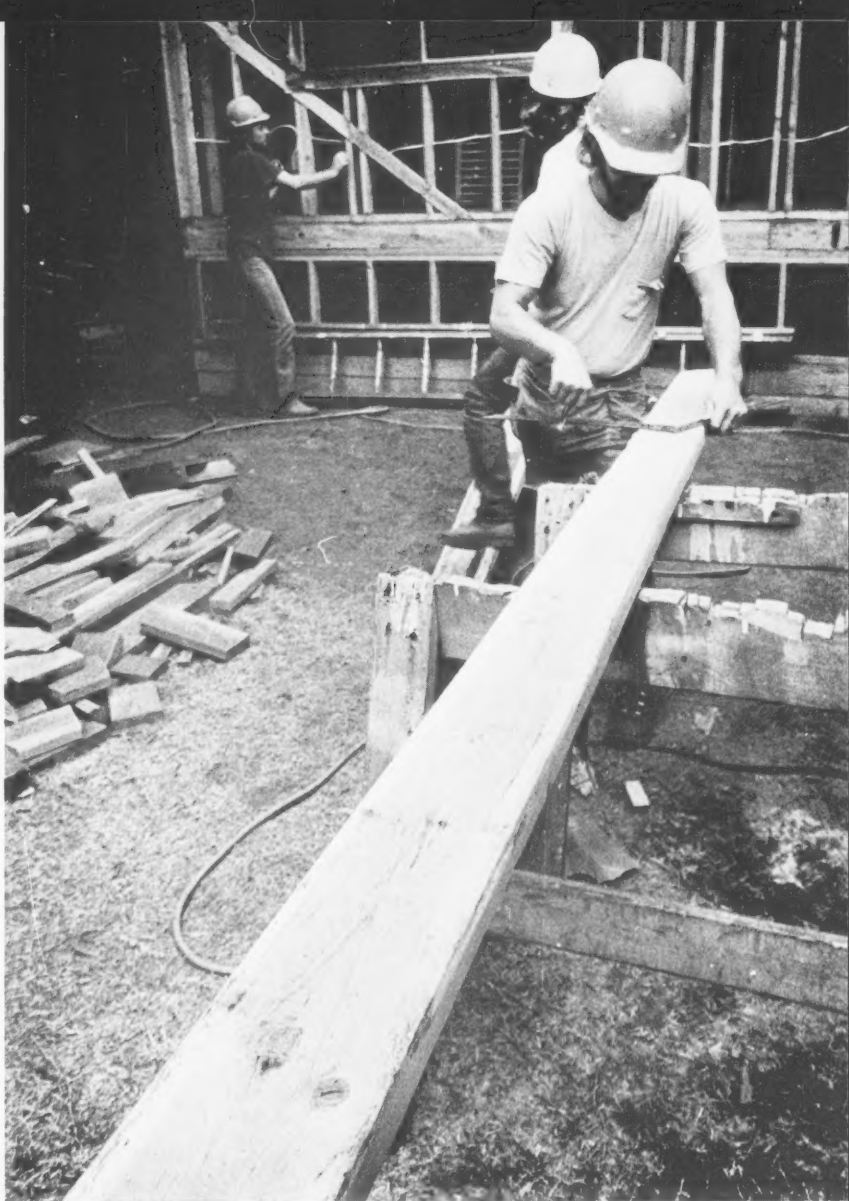
only for the materials used to rehabilitate their homes. There is never a charge for the volunteer labor and this translates into an overall savings of between 65-75 percent of private rehabilitation costs. In addition, CHIP's clients have been able to make use of several sources of below-market-interest-rate loans. The city has established a revolving low-interest loan fund and the Bank of America has made lower rate loans available to the program. In addition, some funds have been provided through Block Grant loans, Farmer's Home loans and "special circumstances" grants for SSI recipients. Weatherization materials have been

contributed by Butte County's Economic Opportunity Council. CHIP also realizes significant materials savings for its clients by recycling donated building materials.

Currently nearly all CHIP rehabilitation jobs are referred through local social service agencies including the community churches, the Welfare Department, the Council on Aging, Butte County's Economic Opportunity Council, the California Human Development Corporation and both the City of Chico and Butte County's Block Grant Programs.

CHIP Services

CHIP stresses self-help principles,





encouraging its clients to be active participants in the rehabilitation of their homes. They are directly involved in every possible step of the project. They take part in the initial planning, the establishment of priorities, in the budgeting and purchasing of materials. If they are able-bodied, they are also expected to participate in the actual rehabilitation work as well, gaining some knowledge and skills that may encourage more effective future maintenance. CHIP provides a variety of other services to the community. They include:

- assistance with self-help rehabilitation projects;
- advice and information to homeowners on all types of available rehab loans;
- assistance with legal problems related to homeownership;
- packaging of 502 and 504 Farmer's Home Loans;
- helping clients to qualify for loans from private sources, such as the Bank of America; (This often includes conducting title searches, credit counseling, building code inspections and materials cost estimates.)
- easy surveys, energy conservation counseling and referrals to the E.O.C. Weatherization Program;
- assisting renters to find and take advantage of ownership opportunities;
- performing emergency service repairs (e.g. reroofing, replacing rotten flooring, windows etc.) and,
- maintaining a tool lending service for self-help repairs.

Typical CHIP Clients and Problems

CHIP generally serves the lowest income households in the community. They are the elderly or single-parent families, with incomes often averaging \$300 a month. Much of the older housing in the community was built over 50 years ago when little attention was paid to building standards. Many have received little or no maintenance, particularly during the recent era of soaring repair costs. These older houses require extensive basic structural repairs that would be



financially unfeasible for their owners were it not for the CHIP program.

CHIP projects usually involve: full perimeter foundations; complete rewiring; new service panels; new plumbing; reforming of substandard additions; floor, wall and window repairs; repair or replacement of siding; insulation; repairs to steps and sagging porches; and interior and exterior painting. Many older homes also have jerry-built additions, such as bathrooms which need thorough renovation in order to meet modern code standards.

CHIP services are designed for people who intend to live permanently in their houses. As those services quite often substantially enhance the market value of the rehabilitated properties, and as volunteer labor is the program's major contribution to these increased values, CHIP's clients are required to sign a labor lien. This lien is amortized at 20 percent per year over a 5-year period. The outstanding portion is collectable only if the house is sold within that 5-year period. It is effective in encouraging clients to resist the temptation to cash in on the increased value of their property.

Counseling

Financial counseling frequently involves arranging *realistic* credit terms for clients. Although some have unfavorable credit records and many entirely lack past credit experience, there have been virtually no defaults on CHIP-arranged loans. Material costs for rehabilitation projects have averaged approximately \$3,000. The most expensive project to date cost \$6,000.

CHIP's working crews are basically on-the-job trainees with varying levels of ability, skill and experience. As CHIP insists on professional standards of quality in its completed work, jobs often take a long time. The homeowners continue to live in their homes while repairs are in progress and there is considerable interaction between CHIP crews and the families they service.



Despite the inherent invasions of privacy and the inevitable irritations of pounding hammers and drifting sawdust, there has been amazingly little friction. In fact, warm personal attachment often develops between CHIP's crew of predominantly middle-class college students and the families they work with.

CHIP extensively rehabilitated the home of "Grandma" Rocha. A 78-year-old Mexican-American, Mrs. Rocha has lived in the home, which she originally rented for \$7.50, for 45 years and raised 7 children there. CHIP did interior and exterior renovation and her "terminally ill" back porch was reincarnated as a solar greenhouse. During the course of the project, the crew was enthralled by Grandma's enchiladas, indocrinated with her encyclopedic knowledge and innovative theories of herbal medicine. A treasured CHIP souvenir is a photo of beaming Grandma Rocha warmly hugging two crew members in her "resurrected" kitchen. She now shows interested visitors through her rehabilitated home with obvious pride and pleasure.

Mrs. Rocha is, of course, an unusual individual, but most of CHIP's clients have been appreciative and tolerant. "I really find no fault with the program," says Mrs. Risher who currently has a CHIP crew working on her home. "Sure



it's inconvenient, but I expected that." CHIP has completed almost 100 major projects. Intensive renovation has brought substandard housing completely up to code requirements and many lesser rehabilitation jobs have been completed.

CHIP Crews And Their Training

CHIP's current workforce consists of nine crews, each with a leader and three to five members. Approximately 30 percent of the work force are women and 20 percent of the crews have limited or no English speaking ability. They consist of three CSUC student volunteer crews, one VISTA crew, two CETA Title VI crews, and three farmworker crews.

Planning instruction and supervision are the responsibilities of the nine crew



leaders, a B-1 contractor, a rehab specialist and a college instructor from CSUC's Industrial Technology Department.

CSUC's ITEC Department has developed a special class in rehab training for CHIP and is currently preparing audiovisual training modules. All student volunteers and CETA personnel have trained through this program. Those who complete the CHIP program generally attain job market entry level skills in all aspects of housing rehabilitation. Many former CHIP trainees have succeeded in obtaining licenses and are operating their own general contracting businesses. Others have been able to enter the building trades as higher ranking apprentices because of their CHIP background.

Opportunities for Women

CHIP provides an unusual opportunity for women to receive professional training and job experience in the building trades, an area difficult for women to enter. With 1 or 2 years of CHIP experience, women are beginning to find they can get deserved recognition of their skills and competence.

Carmen Wooten, for 2 years an ACTION UYA volunteer, now sees a potentially successful future for herself in the building trades. "I want to teach and encourage more women to enter the field," says Ms. Wooten. "Traditional male-dominated trade unions are still reluctant to let women in." Liz Steele, another 2-year ACTION UYA veteran, dreams of using her CHIP training to help to improve the general housing situation for low- and moderate-income groups. She hopes to be able to acquire deteriorated housing and rehabilitate it for sale to low-income people.

Richard Chabot says that his year with CHIP has "cleared up for me the mysteries of building and fixing a house." Chabot is now planning to study Chinese in Taiwan, but intends to build his own home in the future.

Expansion of CHIP Services

During the past 3 years, CHIP has begun providing labor for Chico's Community Development Block Grant (CDBG) target area residential rehabilitation. CHIP's volunteer labor forces allows available CDBG funds to be stretched to cover many more projects than would otherwise be possible. This illustrates the way in which CHIP's existence works to multiply rehab resources in the area. The support of the city enables CHIP to generate grants from a variety of sources. The city contracts with CHIP for all its low-income housing rehabilitations and the availability of CHIP's labor subsidy facilitates funding for city projects. There are also substantially reduced social and monetary costs as displacement of low-income families in code enforcement areas and the need for very deep subsidies are minimized.

Although Chico is a discretionary community for CDBG funding, CHIP provides the area with a alternative rehab program even if those funds were to be discontinued.

In 1976-1977, CHIP secured a CETA Title I Governor's four percent Discretionary Fund Grant enabling the expansion of its services to unincorporated areas of the city, where much of the poorest housing is found. The State of California Housing and Community Development Agency (HCD) has provided funds for housing counseling services through its Low-Income Home Management Training Program; their funding has been renewed through 1979. Since December 1978, VISTA has provided CHIP with a working crew, a community organizing staff and a legal staff.

Since November 1978, CHIP has worked as a subgrantee with the California Housing and Community Development Agency on a Rural America Housing Rehabilitation Program (CETA Title III,

migrant 303). In this program, low-income farmworkers are trained in housing rehabilitation skills by working on homes of other farmworkers. CHIP now has three crews operating under this program serving eligible families in all of Butte and parts of neighboring Glenn counties.

As the UYA program draws to a close this year, CHIP will replace the core group of full-time volunteers with CETA Title VI trainees, who will continue to avail themselves of the college's instructional resources.

The search for funds to sustain and extend the program is a never-ending task of CHIP's administrators. Sources that have provided assistance include:

- 1) City Revenue Sharing (Administrative Costs);
- 2) CSUC (Work Study-Instructional Staff);
- 3) and ACTION-UYA and VISTA (volunteers);
- 4) California Housing and Community Development;
- 5) Low-Income Home Management Training Program (Housing Counselor, Self-Help Assistance);
- 6) California Energy Commission (Energy Auditor);
- 7) Catholic Charities (consultant fees for Housing Co-op Development);
- 8) Pacific Gas and Electric (training and computer time for energy audits);
- 9) Rural Communities Assistance Corporation (Technical assistance, Self-Help consultant, Small Business Development and Rehabilitation Specialist); and
- 10) CETA (23 positions and training costs).

CHIP is now, for the first time, beginning to enter the area of new low-income housing. With the help of its VISTA volunteers and financing from the Farmer's Home Administration, CHIP is initiating a self-help housing program for rural families. VISTA volunteers are recruiting eligible families and will do the necessary loan packaging for the projects.

Butte County's CDBG program will underwrite the cost of some lots for this project.

In the City of Chico, the VISTA's, directed by CHIP's housing counselor, are attempting to implement a 75-100 unit housing cooperative. The Sacramento Diocese of Catholic Charities has funded a feasibility study for this project.

CHIP and the VISTA volunteers are also engaged in outreach programs throughout the CDBG target area to increase community awareness of and participation in the Block Grant process. A neighborhood group has been formed in Chapmantown, the neighborhood with the lowest incomes and poorest housing in Chico and is actively involved in studying, planning and implementing improvement projects there.

Seven years after its inception, CHIP is a long way from achieving its goal of decent and affordable housing for all the residents of the community. It has however succeeded in making a discernible positive impact on local housing conditions. More importantly, it has succeeded in establishing a broad coalition of representative elements of the community, including University and City administrations, local business interests, student and ACTION volunteers and a variety of public and private social service agencies. It has also succeeded in mobilizing some significant effort on the part of the victims of the substandard housing situation, who have begun to see in this community effort, some hope for a solution to their problems. It is this process, a general community involvement in the identification and resolution of community housing problems, that is the basis of the philosophy of the CHIP program.

Ms. Wagstaff is Director of Chico Housing Improvement Program.

Lines and Numbers



Selected Characteristics of the Black Population

The black resident population on April 1, 1979 was 25.4 million, an increase of 1 million over 1975. The average annual rate of change between 1975 and 1978 was 1.4 percent – close to that characterizing the first half of the 1970 decade.

In 1978 there were 5.8 million black families. During the period from 1975 to 1978, black husband-wife families declined from 61 percent to 56 percent of all black families while the proportion of women with no husband present increased from 35 percent to 39 percent.

The 1977 median income of black families was \$9,563, while white families had a median income of \$16,740. Between 1974 and 1977, the real median income of black families did not show significant change. However, real median income for white families increased two percent during the period, from \$16,476 to

\$16,740. Black median income as a percent of white median income declined from 60 percent in 1974 to 57 percent in 1977.

There were 7.7 million blacks and 16.4 million whites below the poverty level in 1977. Between 1974 and 1977, the number of poor blacks rose by over half a million, with most of the increase taking place between 1974 and 1975. Whites also experienced a large increase in that year but this rise was followed by a decline of 1.4 million over the next two years (1975-77).

Homeownership has increased among black households, particularly since 1940, as a result of increasing income levels, high rates of marriage and household formation, and Federal programs encouraging homeownership. From 1940 to 1970, the rate of owner occupancy nearly doubled, increasing from 23 to 42 percent.

Total Resident Population: 1975 to 1978 (Numbers in thousands)

Year	Total Population	Black Population	Percent Black of total
1975	212,538	24,345	11.5
1976	214,280	24,685	11.5
1977	215,916	25,026	11.6
1978	217,640	25,381	11.7

Distribution of Families, by Type: 1975-1978

Type of family and race	1975	1976	1977	1978
Black				
All families (thousands)	5,491	5,586	5,804	5,806
Percent	100.0	100.0	100.0	100.0
Husband-wife	61.1	60.0	58.7	56.1
Male head, no wife present	3.6	4.1	4.2	4.6
Female head, no husband present	35.2	35.9	37.1	39.2
White				
All families (thousands)	49,440	49,873	50,083	50,530
Percent	100.0	100.0	100.0	100.0
Husband-wife	87.1	86.8	86.7	85.9
Male head, no wife present	2.4	2.4	2.4	2.5
Female head, no husband present	10.5	10.8	10.9	11.5

Median Income of Families: 1975-1977

	1974	1975	1976	1977
Black Families				
Number (thousands)	5,491	5,586	5,804	5,806
Median Income	\$ 9,838	\$ 9,885	\$ 9,838	\$ 9,563
White Families				
Number (thousands)	49,440	49,873	50,083	50,530
Median Income	\$16,476	\$16,065	\$16,539	\$16,740

Black Median Income as % of White

60% 62% 60% 57%

Persons Below the Poverty Level: 1974-1977 (Numbers in thousands)

Race	1974	1975	1976	1977
White				
Number	15,736	17,770	16,713	16,416
Percent	8.6	9.7	9.1	8.9
Black				
Number	7,182	7,545	7,595	7,726
Percent	30.3	31.3	31.1	31.3

Tenure of Occupied Housing Units, for Selected Years: 1940 to 1976 (Numbers in thousands)

Year	Total	Black Owner occupied	Black Renter occupied	Total	White Owner occupied	White Renter occupied
1940	3,157	720	2,437	31,561	14,418	17,143
1960	5,144	1,974	3,171	47,880	30,823	17,057
1970	6,180	2,568	3,612	56,529	36,979	19,551
1976	7,711	3,371	4,340	65,114	44,024	21,090
Percent Distribution						
1940	100	23	77	100	46	54
1960	100	38	62	100	64	36
1970	100	42	58	100	65	35
1976	100	44	56	100	68	32

Sources: *The Social and Economic Status of the Black Population, and Annual Housing Survey: 1976*, U.S. Department of Commerce, Bureau of the Census.

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